WHAT IS NIEM
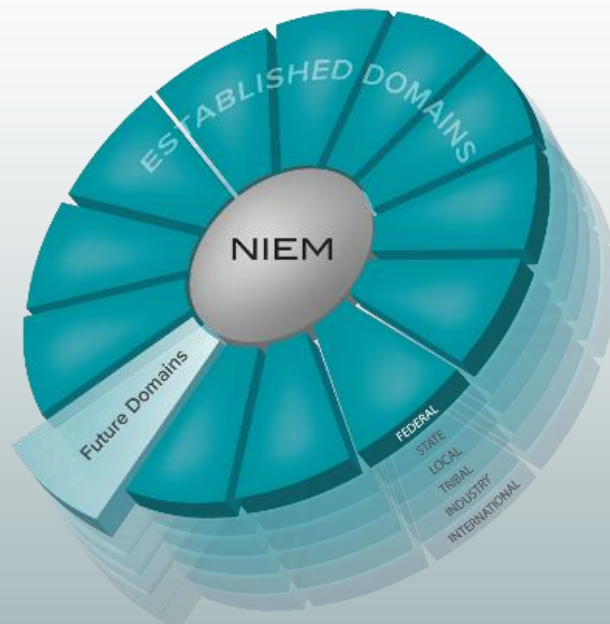
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HOW NIEM WORKS

Common Language
(Community-driven Data Model)

Built and governed by the business users at Federal, State, Local, Tribal, International and Private Sectors

Repeatable, Reusable Process
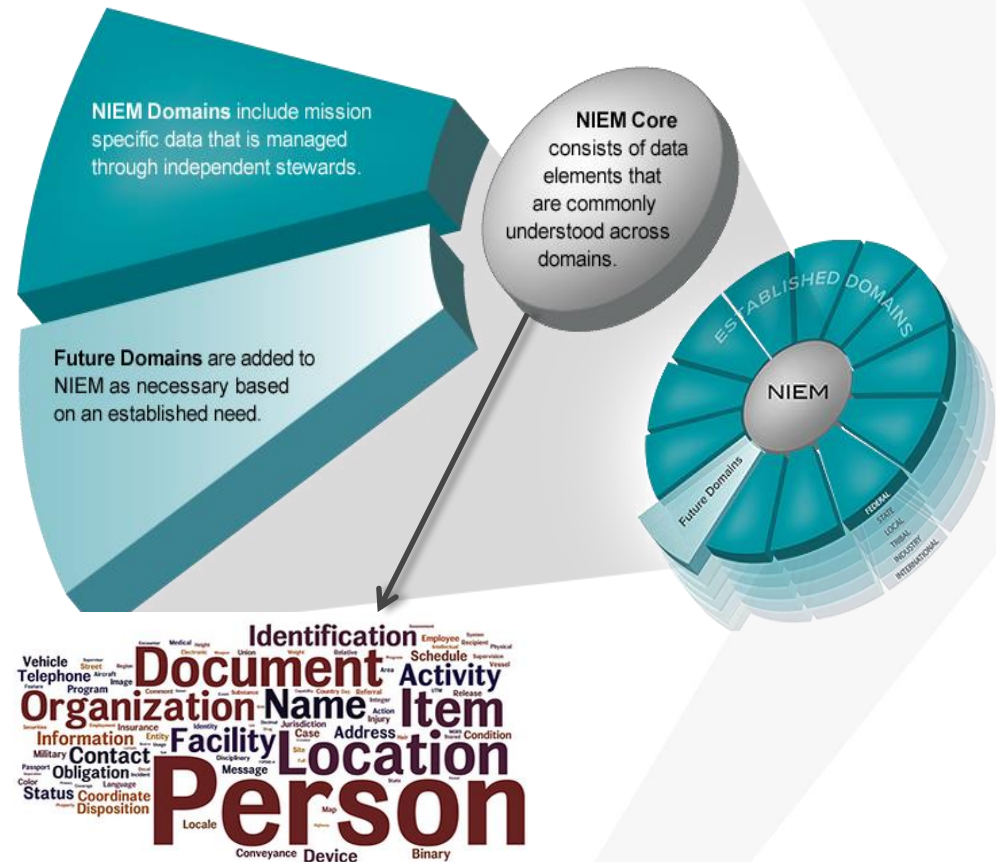(Information Exchange Development Lifecycle)

MODEL OVERVIEW

Think of the NIEM data model as a mature and stable data dictionary of agreed-upon terms, definitions, relationships and formats independent of how information is stored in individual agency systems.

The data model consists of two sets of closely related vocabularies: *NIEM Core* and individual *NIEM Domains*.

- Biometrics
- Chemical, Biological, Radiological, & Nuclear
- Children, Youth, and Family Services
- Emergency Management
- Health *(emerging)*
- Human Services Immigration
- Infrastructure Protection
- Intelligence
- International Trade
- Justice
- Maritime
- Military Operations
- Screening
- Surface Transportation *(emerging)*

NIEM Domains include mission specific data that is managed through independent stewards.

NIEM Core consists of data elements that are commonly understood across domains.

Future Domains are added to NIEM as necessary based on an established need.

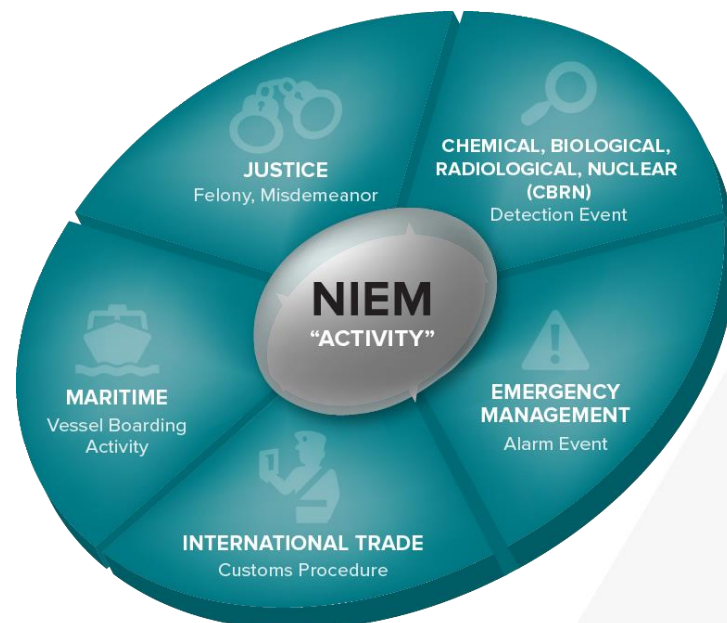NATIONAL INFORMATION EXCHANGE MODEL

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DATA COMPONENTS

The data model consists of two sets of closely related vocabularies: **NIEM core** and individual **NIEM domains**.
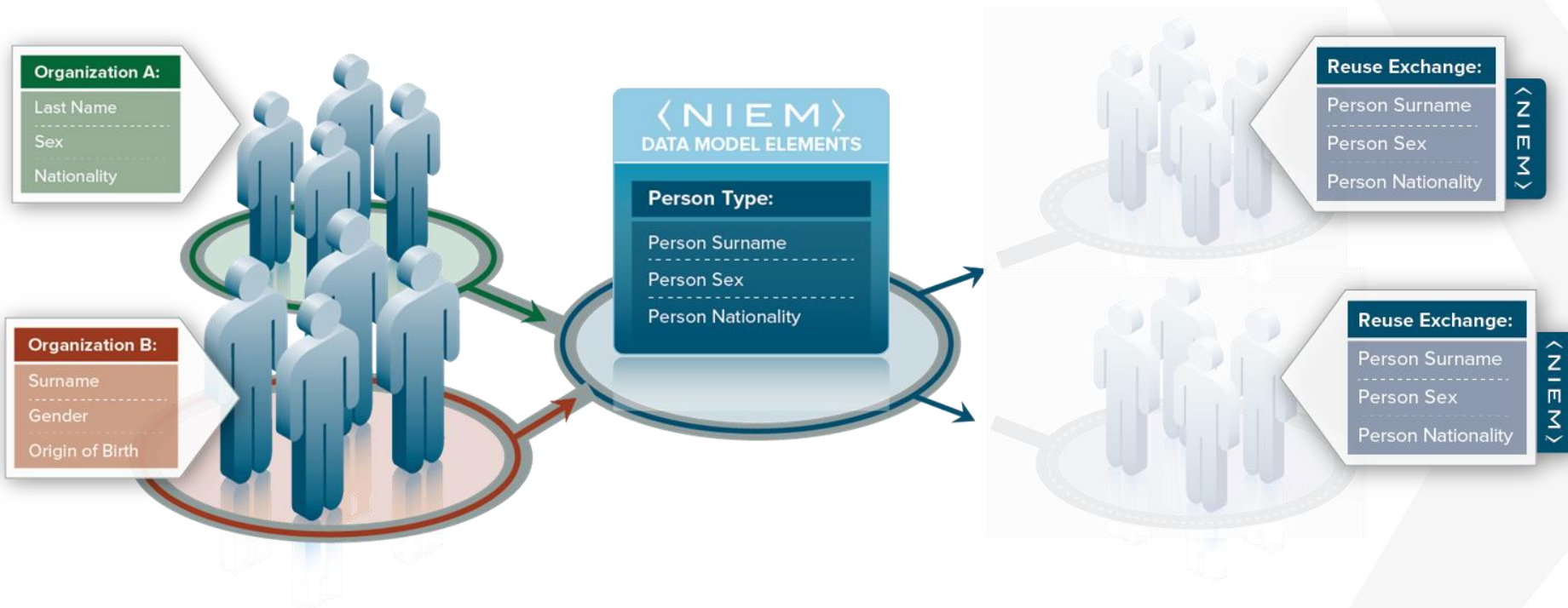
NIEM core includes data elements commonly understood across all NIEM domains, such as person, activity, location, and item.

NIEM domains contain mission-specific data components that build upon NIEM core concepts.

BASIC OVERVIEW: NIEM IN ACTION

NIEM is not a system or database; it does not specify how to transmit or store data.
NIEM is a standard way of defining the contents of messages being exchanged.

This allows diverse communities to collectively leverage a common vocabulary and exchange development tools irrespective of technologies, increasing both efficiencies and improving decision-making.

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NIEM'S BENEFITS & IMPACTS

NIEM PROVIDES…

Collaboration

Brings stakeholders together through reuse and community engagement

Consistency

Provides a standardized framework and mature governance

Development

Supplies tools to aid in discovery and creation of exchanges

Support

Provides technical assistance and training

Which Leads To

Lower Development Costs

Enhanced Mission Capabilities

Common Vocabulary

Reduced Maintenance Costs

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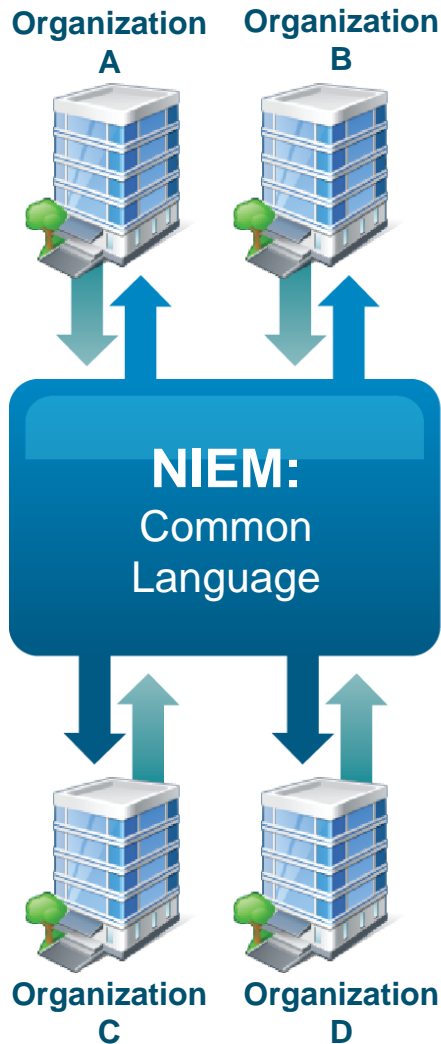NIEM.gov

NIEM: A PLACE TO START

NIEM provides a common vocabulary as well as information exchange development tools and guidelines that diverse communities collectively leverage to increase efficiencies and improve decision-making.

Whether you are a police chief, port security director, financial regulator, child welfare worker, or physician—anyone who has a complex problem to solve that crosses organizational, sector, function, and/or geographic boundaries—you need information. However, much of it could be maintained by other organizations. We need a way for our disparate computer systems to "speak the same language."

For example, if I say "rocket" and you say "spaceship," we may mean the same thing, but we don't have a way to tell our computer systems to treat these words as having the same meaning.

Source A
Rocket

Source B
Spaceship

BENEFIT: COMMON LANGUAGE

Organization A   **Organization B**

NIEM:
Common Language

Organization C   **Organization D**

When using NIEM, you only need to "speak" two languages—your own and NIEM.

When developing information exchanges, agreeing to a common set of data elements and definitions is a frequent challenge. NIEM was built to address this challenge.

For example: a previous data exchange included four partner organizations. As one of the four partner organizations, you would have had to connect to three different systems and negotiate a common language between them. Now, it's just your language and NIEM.
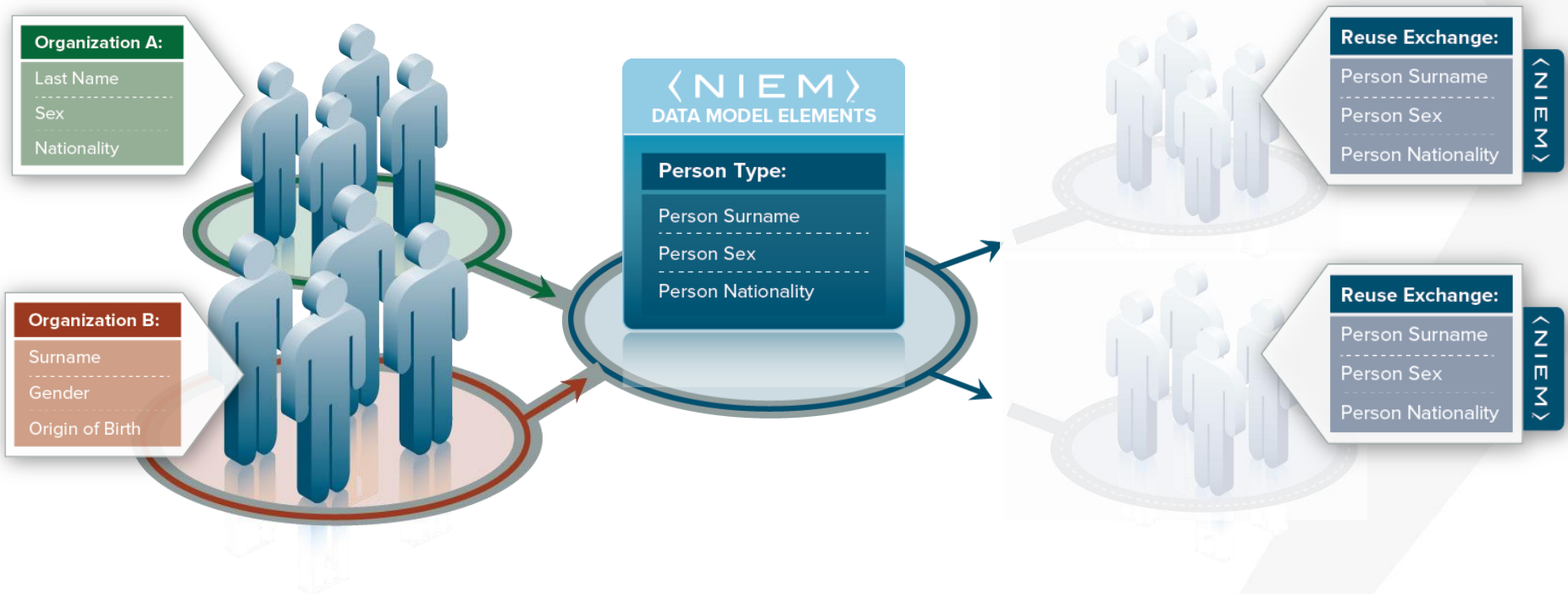
NIEM provides this common vocabulary, thus a place to start—saving time and money.

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BENEFIT: INTEROPERABILITY

NIEM provides a consistent starting point for creating information exchanges so that the sender and receiver of information share a common, unambiguous understanding of the meaning of that information.

This ensures that information is understood and carries the same consistent meaning across various communities, irrespective of technologies, allowing interoperability to occur.

Interoperability is a characteristic of information systems that use NIEM to exchange information—NIEM allows for the quick and easy addition of exchange partners, irrespective of technologies being used.

BENEFIT: COMMUNITY COLLABORATION

Mission challenges and opportunities are too large for any one organization, sector, unit, or nation to take on alone—they must be addressed collaboratively.

NIEM is a data model used to facilitate information exchange among partners in various disciplines, government-wide. With NIEM, information exchange partners come together to identify what data needs to be exchanged, then agree to exchange that data in a standards-conformant manner.
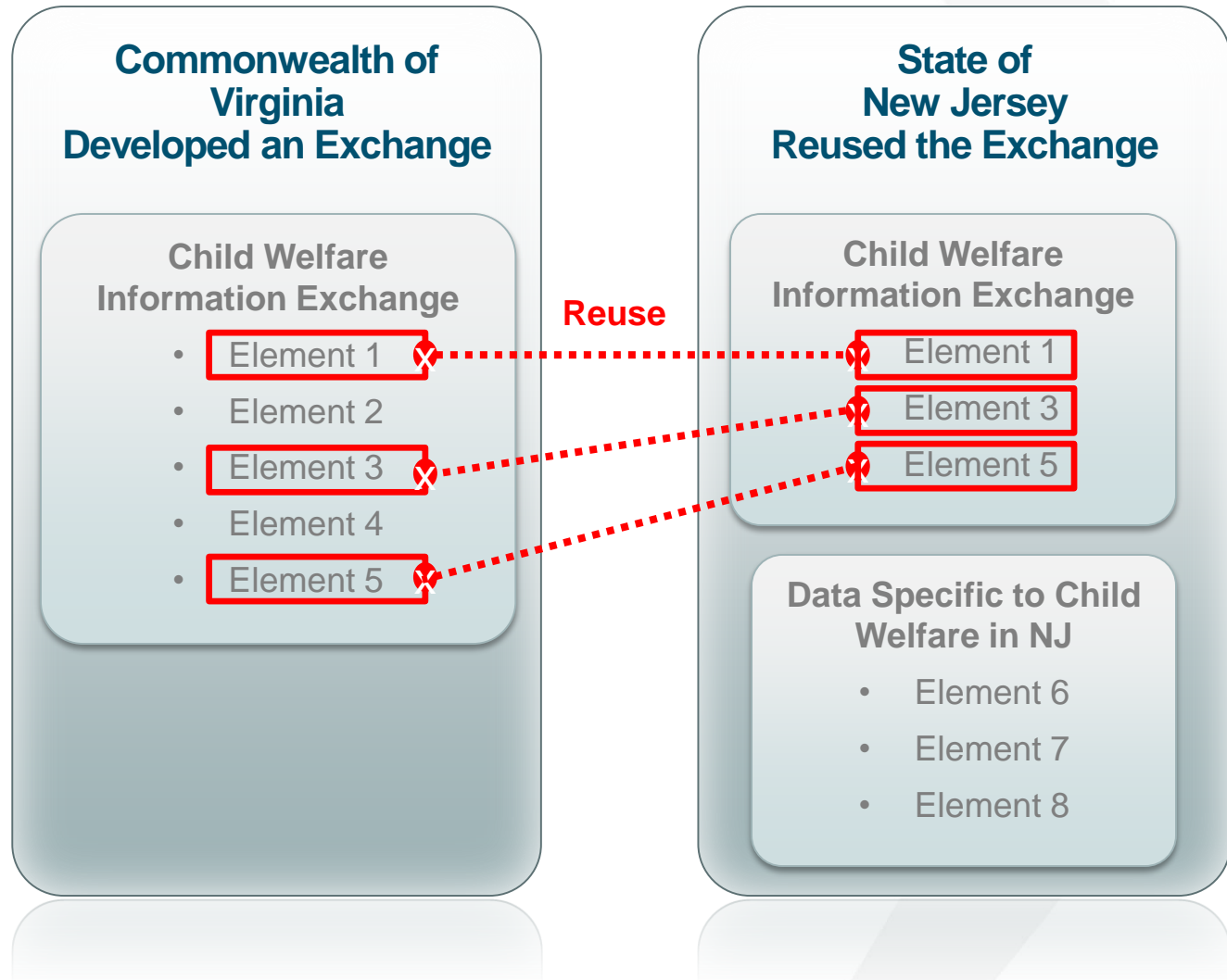
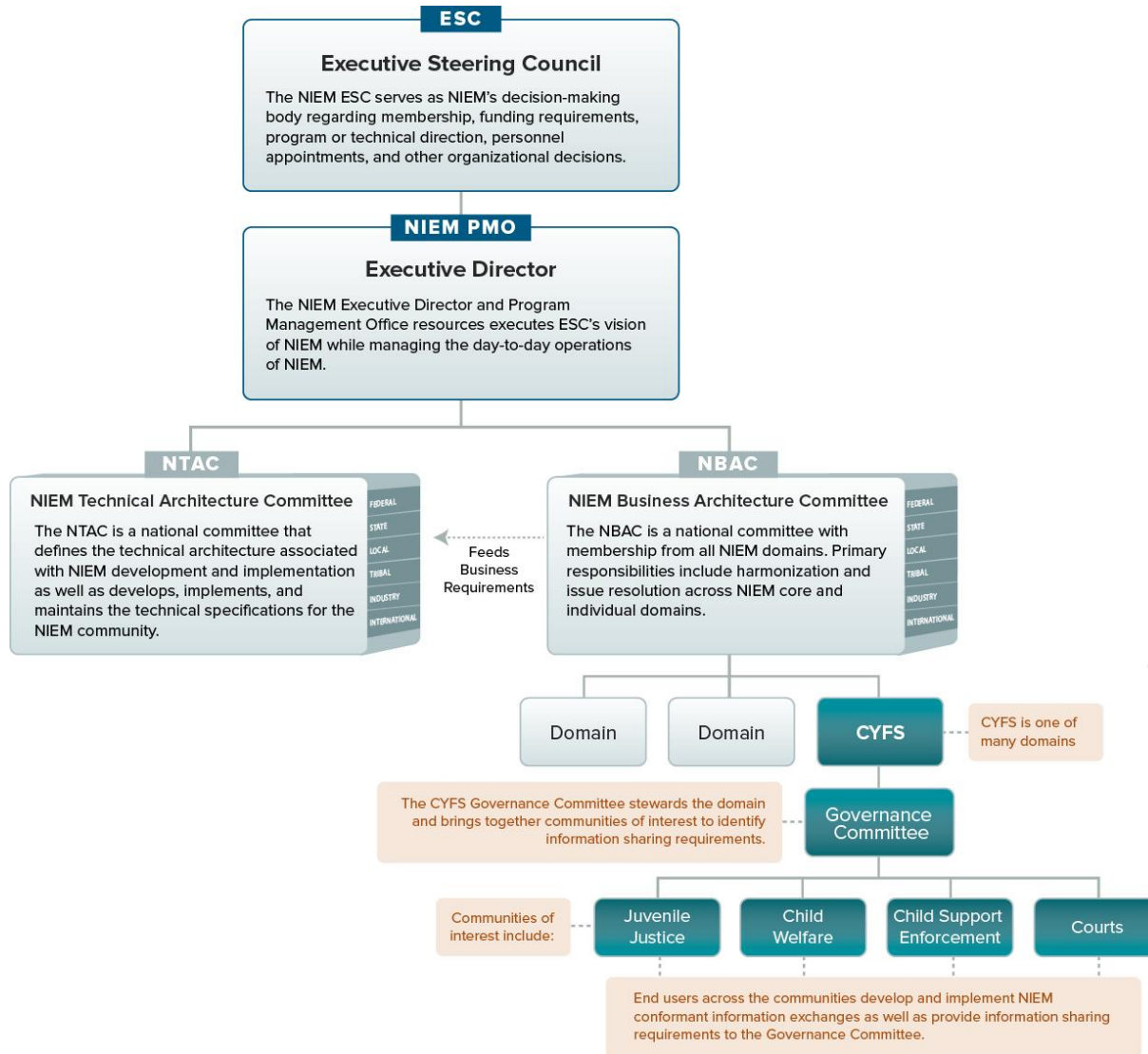The use of NIEM accelerates collaboration in and across communities.

BENEFIT: REUSE OF AN EXCHANGE

Since NIEM exchange developers follow the same technical framework, they can borrow from and reuse each other's work.

Because the NIEM data model is composed of data elements that cross sectors, functions, and geographic boundaries, an exchange developed for one organizational business requirement could be "reused," partially or fully, for a different need within or by another organization.

Commonwealth of Virginia Developed an Exchange

Child Welfare Information Exchange

- Element 1
- Element 2
- Element 3
- Element 4
- Element 5

Reuse

State of New Jersey Reused the Exchange

Child Welfare Information Exchange

- Element 1
- Element 3
- Element 5

Data Specific to Child Welfare in NJ

- Element 6
- Element 7
- Element 8

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NIEM GOVERNANCE

Example of a NIEM domain's cross-jurisdictional governance structure:

The NIEM Children, Youth, and Family Services (CYFS) domain supports timely, complete, accurate, and efficient information sharing to improve outcomes for children and youth whose circumstances make them particularly vulnerable.

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HOW TO GET STARTED

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FREE ONLINE NIEM TRAINING FOR YOU OR YOUR ORGANIZATION

	NIEM 100	NIEM 101	NIEM 200	NIEM 300	NIEM 301	NIEM 302	NIEM 303
Executive Managers	●	○					
Program and Project Managers	●	●	●				○
Architects	●	●	○	●			●
Developers	●	●		●	●	●	●

● = Required   ○ = Optional, depending on role

7 COURSES

4 DISTINCT AUDIENCES

Participants can follow one of the four tracks or customize their education by selecting specific courses based on their business need.

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WHO USES NIEM?

NIEM is in the public domain and available for any agency or organization to use. We can track use of NIEM across the majority of federal agencies and 50 states, as well as internationally. Often, the NIEM program does not know who is using it unless we hear someone talking about it!

"Are You NIEMified?" is a community-building campaign to track NIEM adoption.

Interactive Map on NIEM.gov

NIEM.gov/map

NIEMified (adjective): Indicating an entity such as a project or organization that has implemented a NIEM-based exchange to advance their mission.

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CELEBRATING A DECADE OF NIEM
NIEM TURNED 10 ON APRIL 19!

10 YEARS OF
NIEM

We've come a long way! Check out a few success stories
highlighting NIEM's impact on **NIEM.gov**.

MORE ON NIEM HERE

Website at **www.NIEM.gov**

GitHub at NIEM.github.io

Twitter at www.twitter.com/NIEMConnects

YouTube at www.YouTube.com/NIEMConnects

LinkedIn at http://www.linkedin.com/groups?gid=1903175

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